Montana State Legislature

Exhibit Number 6

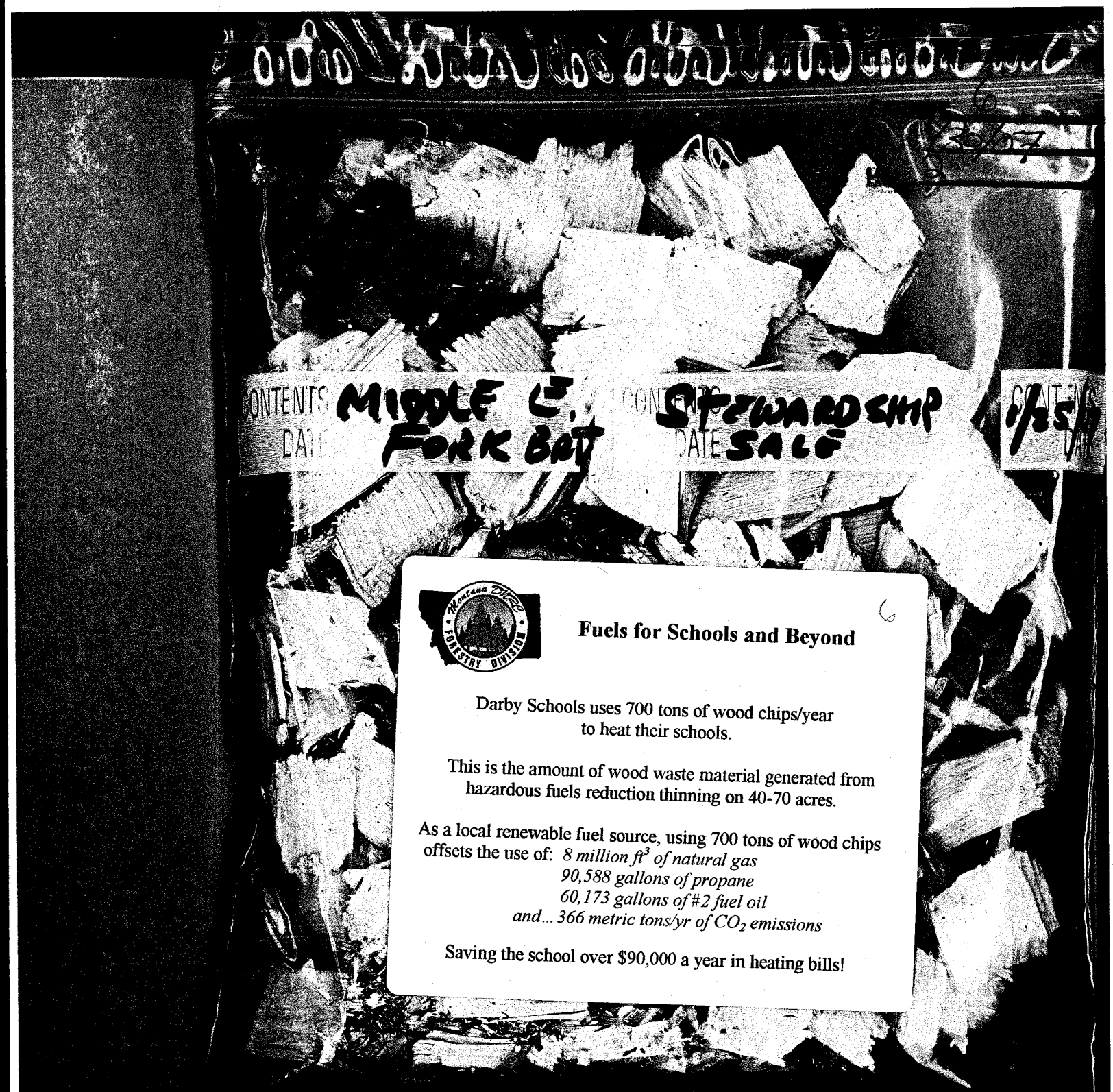
This exhibit is a mini-DVD from the DNRC. Entitled; 2006 Accomplishments by County Forestry Division. The DVD cannot be scanned - it is on file at the Montana Historical Society and may be viewed there.

EXHIBIT 6
DATE 1-30-07
HB 2

Montana State Legislature

Exhibit Number: 6

This exhibit is a plastic bag with wood chips in it- it has been scanned to aid in your research. The original is on file at the Montana Historical Society and may be viewed there.



Fuels for Schools and Beyond

Darby Schools uses 700 tons of wood chips/year to heat their schools.

This is the amount of wood waste material generated from hazardous fuels reduction thinning on 40-70 acres.

As a local renewable fuel source, using 700 tons of wood chips offsets the use of: *8 million ft^3 of natural gas*
90,588 gallons of propane
60,173 gallons of #2 fuel oil
and... 366 metric tons/yr of CO_2 emissions

Saving the school over $90,000 a year in heating bills!

Montana DNRC Forestry Division

FORESTRY ASSISTANCE

EXHIBIT 9
DATE 1-30-07
HB 2

Biomass Utilization

Forest Pest Management

Forest Practices

Forest Stewardship

Montana Conservation Seedling Nursery

Urban and Community Forestry

Biomass Utilization
Fuels for Schools and Beyond

Promoting Healthier Forests and Communities by Using Waste Wood to Heat Schools and other Public Facilities

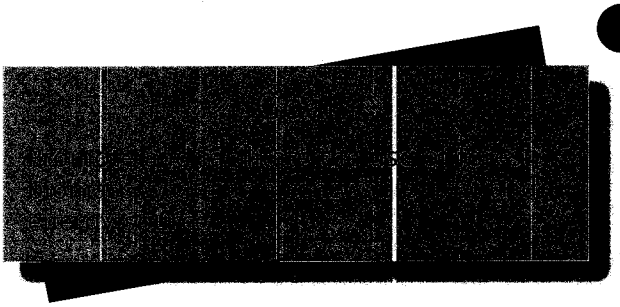
BIOMASS UTILIZATION

Montana Department of Natural Resources and Conservation

Forestry Division
Forestry Assistance Bureau
Biomass Utilization
Fuels For Schools and Beyond

Fuels For Schools and Beyond (FFS&B) is an innovative program designed to promote healthy communities and forests by encouraging schools and other public and non-profit facilities to use biomass heating systems that burn waste wood from hazardous fuels treatment projects. The program involves a partnership among the Montana DNRC Forestry Division, USDA Forest Service State and Private Forestry, the State Foresters of Montana, Idaho, Nevada, North Dakota, and Utah, and the Bitter Root Resource Conservation and Development Area.

Fuels For Schools and Beyond currently is in the second phase of a planned three-phase program. The first phase involved establishing a demonstration project in each of the five states. During phase two, additional biomass boilers are being installed, and phase three will involve transition of primary funding from the USDA Forest Service to the private sector. During this second phase, DNRC FFS&B staff provide technical assistance and advice to facilities interested in exploring the feasibility of converting to a biomass boiler, including arranging for engineering assessments and identifying forest biomass suppliers. DNRC administers a competitive grants program funded by the USDA Forest Service through which facilities can apply for funding to help cover the costs of biomass boiler systems, and FFS&B staff help facilities identify additional sources of funding.



Renewable Energy from Waste Wood Saves Money and Improves Environmental Health

Nearly 90% of the boilers used to heat Montana schools and other public facilities are fueled by natural gas. Rising natural gas prices require ever-increasing expenditures from communities; money spent on heating costs is not available for school supplies or hiring additional teachers. At the same time, many of Montana's forests suffer from hazardously high fuel densities, putting them at risk for catastrophic wildfires. Hazardous fuels treatment projects typically produce large quantities of unmerchantable wood waste. Converting to biomass boilers fueled by wood waste from hazardous fuels treatment projects can help solve both problems. Wood chips are a low cost, abundant fuel source, and cost about one-third the price of natural gas per BTU of heat produced. Burning slash in state-of-the art boilers releases far fewer pollutants than open burning or wildfires. Demonstration projects have proven the viability and cost savings of biomass boilers; the potential to replicate this success at other sites is huge. A recent report identified nearly 100 facilities throughout Montana where conversion to biomass boilers would have a payback period under 10 years.

Program Accomplishments

Projects operational	4
Projects underway (in design or construction)	8
Projects funded	12
Preliminary engineering assessments completed	23
Grants administered	8
Estimated annual CO_2 offset (in metric tons)	5,134

The Fuels For Schools and Beyond Program in Montana

The wildfires of 2000 burned over 350,000 acres and 70 structures in the Bitterroot valley, underscoring the urgent need for fire hazard reduction projects in the wildland urban interface. Because so many areas were in need of treatment, one Darby resident began to research ways that fuels treatment projects could promote local economic development. He discovered that waste wood was being used to heat a number of schools in the northeastern U.S., and approached community leaders with the idea of using slash from hazardous fuels treatment projects to heat Darby's schools.

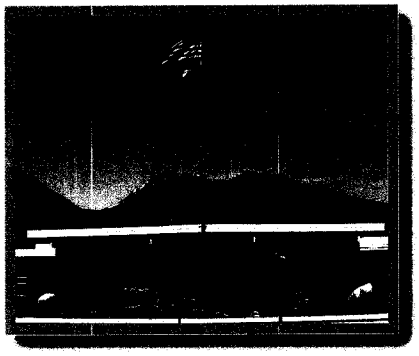
With the aid of a grant from the USDA Forest Service and assistance from the Bitter Root Resource Conservation and Development Area, the USDA Forest Service Forest Products Laboratory, and the Biomass Energy Resource Center, a biomass boiler system was planned, designed, and installed in Darby and began heating the community's three schools in the fall of 2003.

Exciting Firsts For FFS&B in MT:

- [illegible]
- [illegible]
- [illegible]
- [illegible]

Fuel cost savings were $34,000 during the biomass boiler's first year of operation, and $90,000 the winter of 2005-2006. Approximately 70 acres of hazardous fuels treatment is sufficient to provide Darby Schools' annual fuel supply.

Three more Montana schools now have operational biomass boilers, and an additional 8 projects are underway. The Darby Schools project continues to serve as a valuable demonstration and test site. Darby Schools' facilities manager and students have given dozens of tours of the facility, experimented with a variety of fuel types, gathered data on maintenance and operations, and tested the stockpiling of fuel. Their efforts have provided important information for the FFS&B program, and students have gained valuable hands-on experience as part of the science curriculum.

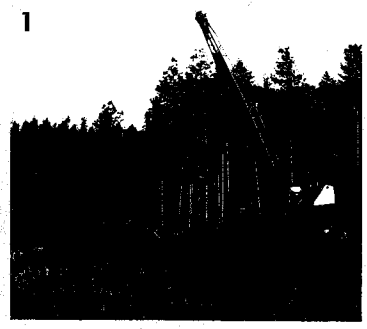


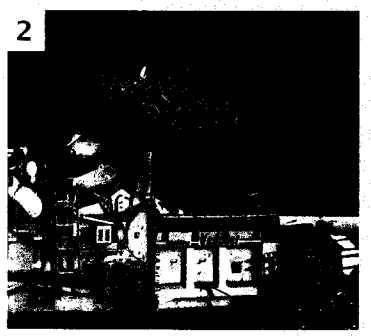
Darby Schools, site of Montana's first FFS&B project

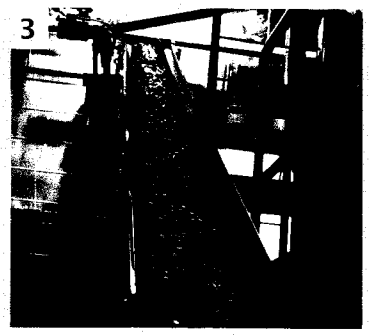
"With recent increases in fuel costs and improved efficiencies in chip storage, this system will save our school district $100,000 in heating costs this year. That's good for the taxpayer, the community, our local businesses, and our forests."

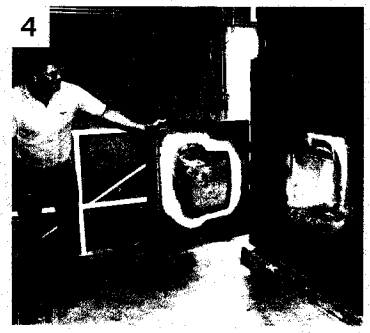
Rick Scheele,
School District Facilities Manager
and City Mayor
Darby, MT

Fuels for Schools and Beyond Projects in MT	Status	Annual Wood Fuel Use (tons)	Estimated Annual Savings	Date Operational
[illegible]	Installed	750	$100,000	11/03
[illegible]	Installed	500	$31,898	9/04
[illegible]	Installed	400	$67,558	1/05
[illegible]	Installed	400	$60,000	10/05
Troy Public Schools	Underway	60 (pellets)	$12,500	11/06
Townsend Elementary and H.S.	Underway	250 (pellets)	$19,500	11/06
University of Montana-Western	Underway	3,600	$118,000	1/07
Glacier High School	Underway	1,900	$65,000	1/07
Central Montana Medical Center	Underway	2,000	$100,670	9/07
Deer Lodge Elementary School	Funded	730	$39,980	3/07
Eureka Public Schools	Funded	960	$103,610	12/07
New Browning High School	Funded	1,250	$48,600	3/09









How FFS&B Biomass Heating Systems Work

1. Sources of wood fuel can include slash generated from hazardous fuels treatment projects, forest management activities, and timber operations, as well as residues from urban tree trimmings, right of way clearings, and wood manufacturers and sawmills.

2. Wood waste is run through a chipper to create wood chips.

3. The wood chips are transported to schools and other sites with biomass boilers.

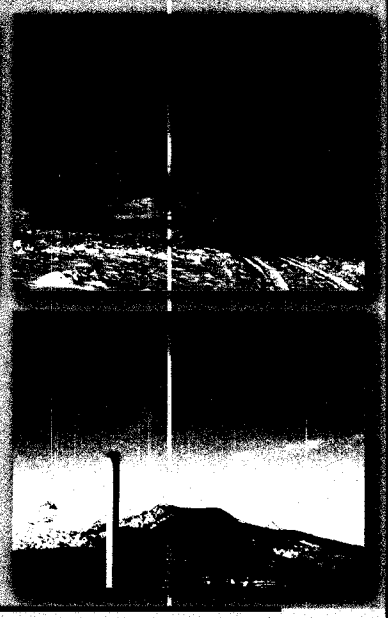
4. Chips are fed into state-of-the art, efficient boilers that generate heat while producing far fewer pollutant emissions than opening burning of the same material.

Community Benefits

- **Facility heating costs are reduced by 30% - 70%**
- **Reduced fire danger**
- **Lower costs to landowners for hazardous fuels treatment**
- **New jobs in forests and communities**
- **Hands-on resource education in public schools**
- **Renewable local fuel source increases energy independence**

Environmental Benefits

- **Improved forest health**
- **Better air quality as burning wood in efficient boilers reduces slash burning and wildfire emissions**
- **Reduction in net greenhouse gas emissions**



Above: Darby students perform a moisture content test on wood chips.

Top right: Open burning produces large quantities of smoke and pollutants.

Bottom right: Steam is normally the only visible emission from modern biomass boilers.

Success of Initial Projects Bodes Well for the Future

Work to date has demonstrated the economic and environmental viability of biomass heating systems, and offers the vision of a future where biomass will be a commonplace option to consider when choosing a heating system. The USDA Forest Service was instrumental in funding the first several demonstration projects and has provided an additional $2 million in competitive grants in Montana since 2005. As the program goes forward, federal funding will be phased out as a market is established. The initial demonstration projects and projects coming online during the expansion phase have been important test and educational sites for investigating different types of systems and fuel types, system installation issues, and fuel processing and transportation options. When the program moves into the final privatization phase, it is expected that the knowledge and experience gained during the demonstration and expansion phases will be key resources as more facilities explore the option of biomass heating, and that the private sector will have the knowledge and capacity to meet the demand for new systems. The collaboration, investment, and hard work of the FFS&B partners will pay many dividends in terms of healthier Montana communities and forests.

Persons with disabilities who need an alternative, accessible format of this document should contact the Montana Department of Natural Resources and Conservation Forestry Division, 2705 Spurgin Road, Missoula, MT 59804-3199. Phone (406) 542-4300 or fax (406) 542-4217. 1000 copies of this document were published at an estimated cost of $.70 per copy. The total cost of $700.00 includes $700.00 for printing and $0.00 for distribution.

	Facility	Location	Square Footage	Project Cost[1]	Peak Output	Annual Wood Fuel Use[3]	Fuel Replaced	Estimated Annual Fuel/ops Savings (price offset)[3]	Date Optn'l[1]
INSTALLED	**Darby Public Schools**	Darby, MT	82,000	$650,000[1]	3 million BTU/hr	760 tons	Fuel oil	$90,195 ($2.30 gal)	11/03
	Victor Public Schools	Victor, MT	47,000[2]	$628,991	4.9 million BTU/hr	425 tons	Natural gas	$22,000 ($12.80 dkt)	9/04
	Philipsburg Public Schools	Philipsburg MT	99,000	$650,000	3.87 million BTU/hr	400 tons	Natural gas	$41,000 ($9 dkt)	1/05
	Thompson Falls Public Schools	Thompson Falls, MT	60,474	$455,000	1.6 million BTU/hr	400 tons	Fuel oil	$36,837 ($2.21 gal)	10/05
UNDERWAY	**Troy Public Schools**	Troy, MT	33,235	$299,000	850,000 BTU/hr	60 tons of pellets	Fuel oil	$12,500 ($1.92 gal)	2/07
	Glacier High School	Kalispell, MT	220,000	$480,000	6 million BTU/hr	1900 tons	New construction	$65,000 ($8 dkt)	2/07[4]
	University of Montana-Western Campus	Dillon, MT	471,370	$1,422,746	13 million BTU/hr	3600 tons	Natural gas	$118,000 ($8.68 dkt)	2/07
	Townsend Elementary & High Schools	Townsend MT	120,000	$425,000	Total of 680,000 BTU/hr	250 tons of pellets	Fuel oil and propane	$19,500 ($8.74/dkt prop $2.41/gal oil)	2/07
	Central Montana Medical Center	Lewistown MT	130,000	$956,000	2.5 million BTU/hr	2000 tons	Natural gas	$100,670 ($10 dkt)	12/07
FUNDED	**Eureka Public Schools**	Eureka, MT	177,679	$1,320,000	4-5 million BTU/hr	960 tons	Fuel oil and propane	$103,610 ($2.27/gal oil $1.31/gal prop)	10/07
	New Browning HS	Browning, MT	130,000	$475,000	3-4 million BTU/hr	1,250 tons	New construction	$48,600 ($9 dkt)	3/09
	Deer Lodge Elementary	Deer Lodge, MT	38,000	$500,000	1.5 million BTU/hr	730 tons	Natural gas	$39,980 ($11 dkt)	8/07
MT TOTAL		**12 projects**	**1,608,758**	**$8,261,737**		**12,735 tons**		**$697,892**	

[1] Projected numbers are provided for projects not yet completed. Darby cost excludes $268,000 for repairs to the existing heat distribution system.

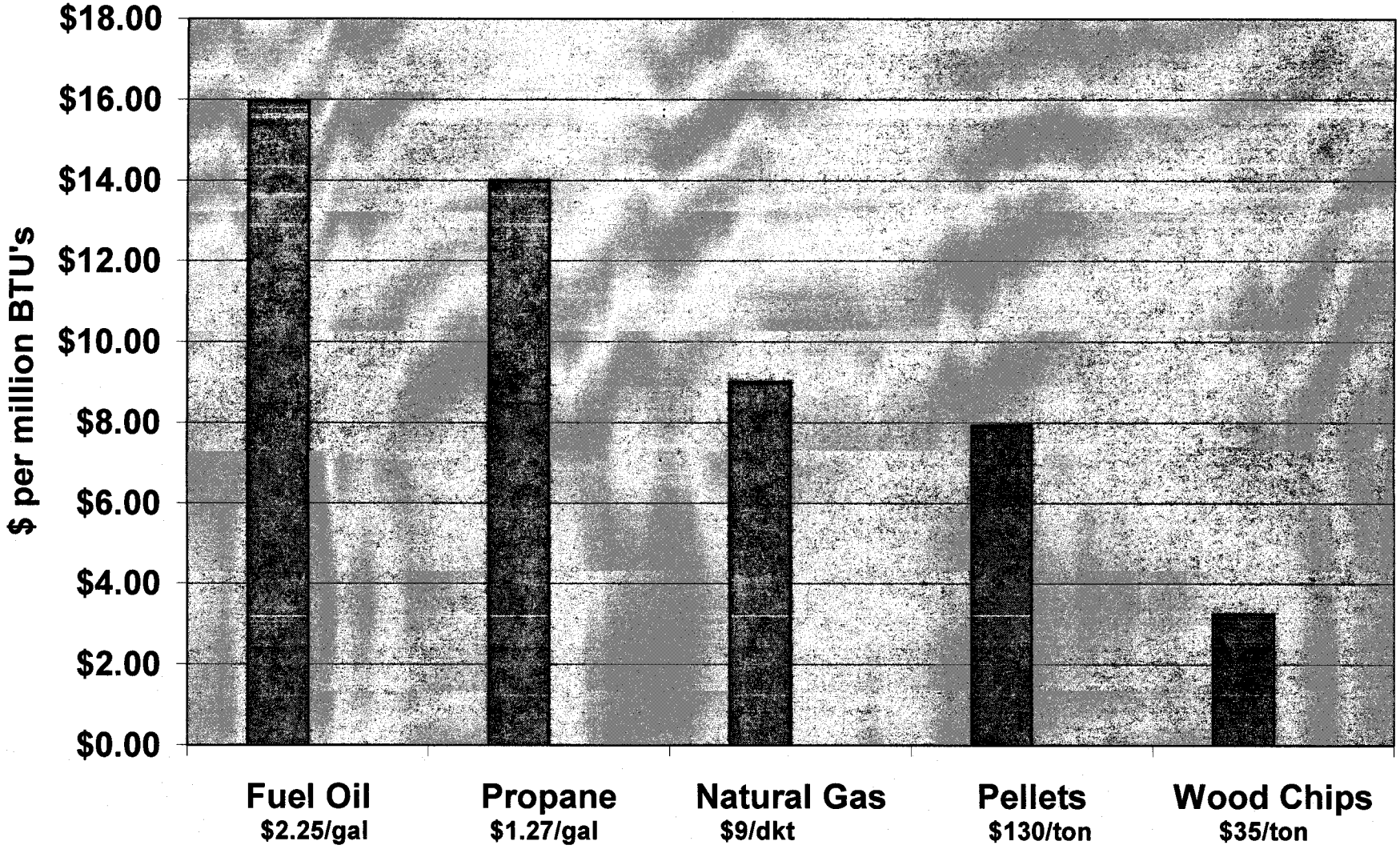
Revised 1-24-07

[2] Victor's boiler is sized to heat an additional 16,000 sq. ft. that will be built in the future – the tons consumed and savings are projected for the full heat load.

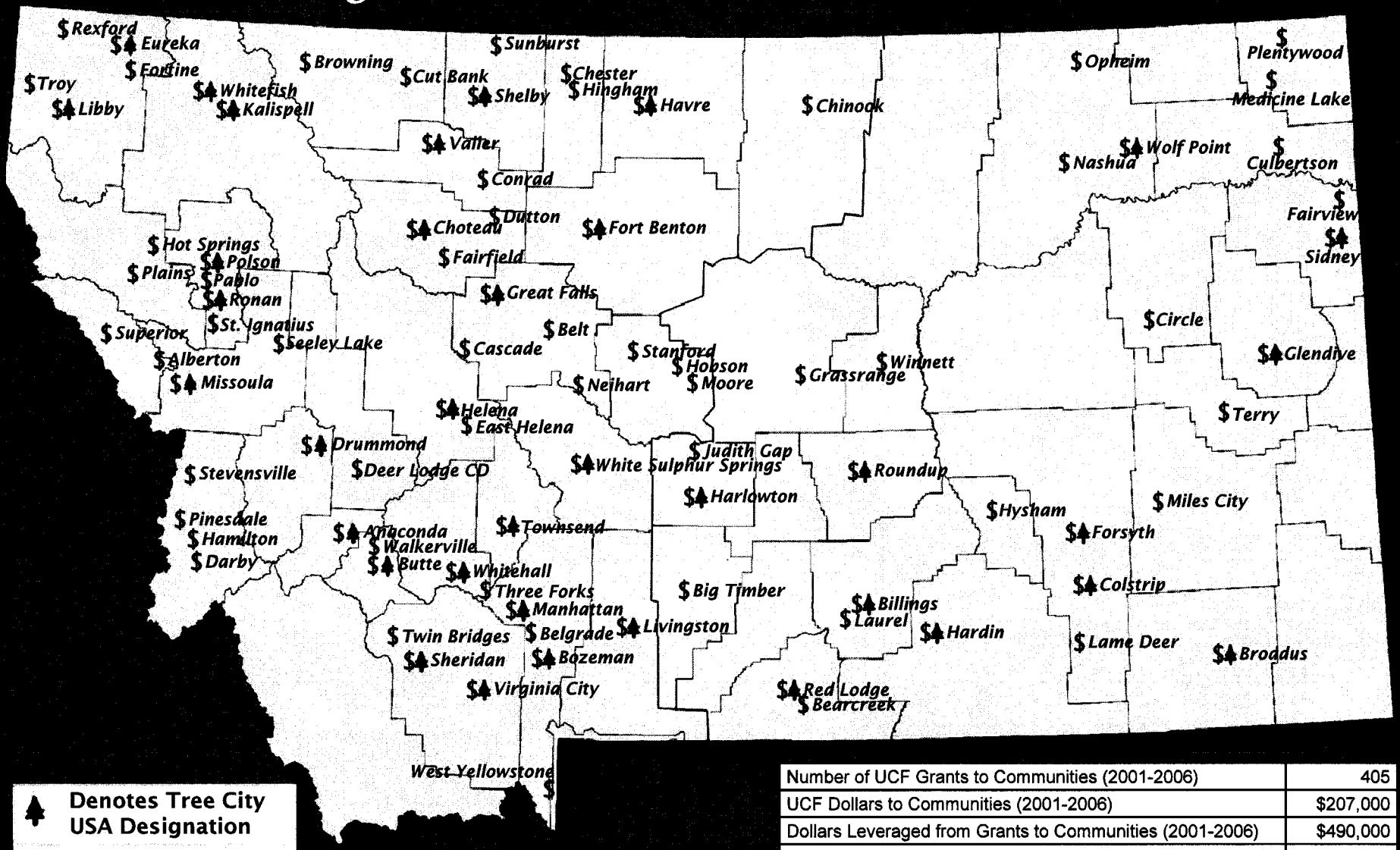
[3] Savings figures are based upon actual performance for the 2005-06 school year where available. Philipsburg's savings are estimated because they reduced the amount of heat required with additional weatherizing. Savings for future projects are projected.

[4] Glacier High School's first operation date will be during construction with full operation in the fall of 2007.

Fuel Cost Comparison



Urban & Community Forestry Program Assistance



Number of UCF Grants to Communities (2001-2006)	405
UCF Dollars to Communities (2001-2006)	$207,000
Dollars Leveraged from Grants to Communities (2001-2006)	$490,000
Number of Tree City USA Communities in Montana (2006)	37
Total Montana Population Living in a Tree City USA (2006)	418,664
Volunteer Hours Leveraged (2006)	20,416

Montana DNRC Forestry Division

FORESTRY ASSISTANCE

Biomass Utilization

Forest Pest Management

Forest Practices

Forest Stewardship

Montana Conservation Seedling Nursery

Urban and Community Forestry

Urban and Community Forestry

Promoting Stewardship of Montana's Urban and Community Forests

URBAN AND COMMUNITY FORESTRY

Montana Department of Natural Resources and Conservation

Forestry Division
Forestry Assistance Bureau
Urban and Community Forestry

DNRC's Urban and Community Forestry Program provides assistance to communities throughout Montana to help develop and maintain local urban and community forestry programs. Urban and community forestry programs enable communities to properly manage and care for their street and park trees through approaches such as comprehensive plans for tree planting and maintenance, tree care ordinances, and public education.

The Urban and Community Forestry Program assists communities by providing services including technical and financial assistance, education, planning assistance, and volunteer coordination to local governments, community leaders, and volunteer groups. Urban and Community Forestry also promotes the continuing education of tree care professionals by offering outreach and sponsoring workshops. The program works closely with several major partners, including the USDA Forest Service, which provides 100% of the program's funding.

The program is staffed by a state-wide coordinator and two regional community forestry specialists. One regional specialist serves the western half of Montana, and the other specialist serves the eastern half of the state.

DNRC Urban and Community Forestry Helps Montana Communities Reach Their Forestry Goals

Trees provide a wide range of environmental, economic, and aesthetic benefits to communities. Many Montana communities recognize the value of their community forests, but few have professional staff specifically dedicated to managing these important resources. Most small towns lack the funding base to hire a professional forester. DNRC's Urban and Community Forestry Program helps bridge the gap between communities' desire to manage their community forests and their limited resources for doing so by providing technical and financial assistance to build communities' capacity for forest management. More than half of Montana's communities receive assistance from the Urban and Community Forestry Program each year and have established or are working to establish an urban and community forestry program.

Program Accomplishments

Grants to Communities
- Over $200,000 to communities since 2001
- Nearly $500,000 leveraged from grants
- Grants to 80 participating communities

Technical Assistance
- 65% of Montana communities assisted
- 37 Tree City USA communities

Helping Communities Create Sustainable Forestry Programs

Guidance For Program Development

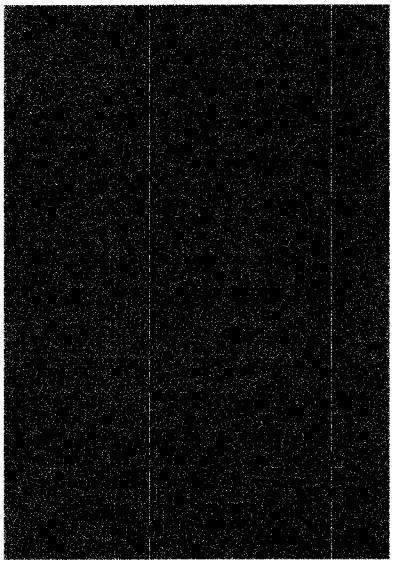
The Urban and Community Forestry Program encourages eligible communities to participate in the National Arbor Day Foundation's Tree City USA Program, and provides assistance to communities to help them attain and retain Tree City USA designation. To be designated a Tree City USA community, a community must meet four requirements that DNRC Urban and Community Forestry recognizes as comprising a solid foundation for development of a sustainable urban and community forestry program. A community must: (1) establish a tree board, often a group of citizen volunteers who are responsible for developing and administering a tree management program; (2) establish a tree care ordinance; (3) commit $2 per capita annually to a tree care program; and (4) celebrate Arbor Day.

There are 37 Tree City USA communities in Montana as of 2005, and 86% of Montana's eligible population (individuals who live in incorporated cities and towns) live in a community with Tree City USA designation. Several Montana communities have maintained Tree City USA designation for more than 20 years, and new communities are seeking the designation every year. Montana is among the top 10 states in the nation for percent of cities with Tree City USA designation.

Although participation in the Tree City USA program is limited to incorporated cities and towns, DNRC's Urban and Community Forestry Program reaches out to all communities in Montana, with the goal of developing a sustainable urban and community forestry program in every community. The Urban and Community Forestry program provides a wide range of technical assistance to all interested communities, and seeks sources of funding that can help provide financial aid to both incorporated and unincorporated areas.

Technical Assistance

Urban and Community Forestry staff members provide technical assistance to more than half of Montana's communities for activities such as tree inventories, developing tree care ordinances, and developing urban forest management plans. Assistance also includes services such as project and grant planning; workshops on topics related to tree care and maintenance; and community forestry presentations to schools and advisory groups. Urban and Community Forestry staff also provide assistance in volunteer coordination, helping communities organize and sustain the volunteer efforts that often are the heart of community forestry programs.

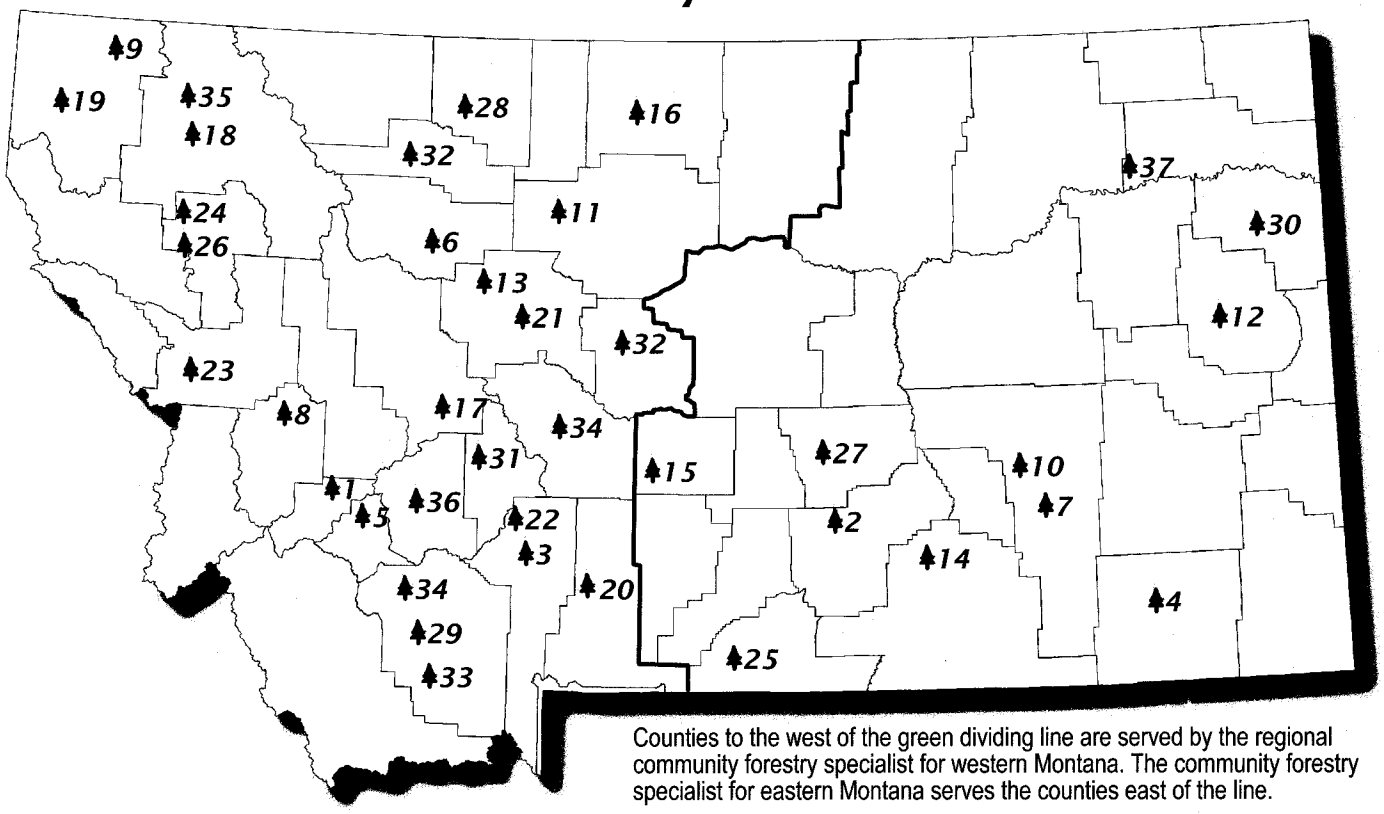


Roundup, one of 37 Tree City USA communities in Montana.

Financial Assistance

The Urban and Community Forestry Program offers several cost-share grant programs to communities to help develop and sustain forestry programs and to help support Arbor Day celebrations. Any community in Montana is eligible to apply for a $150 Arbor Day Grant, and cities that have held the Tree City USA designation for a year or more are eligible for an additional $250. Tree City USA Grants of $500 are available to communities that are newly designated Tree City USA communities. The program offers additional grants for program development, tree planting, and developing ordinances, inventories, and management plans as funding allows.

Montana's Tree City USA Communities



Counties to the west of the green dividing line are served by the regional community forestry specialist for western Montana. The community forestry specialist for eastern Montana serves the counties east of the line.

Number of Years Designated as a Tree City USA Community

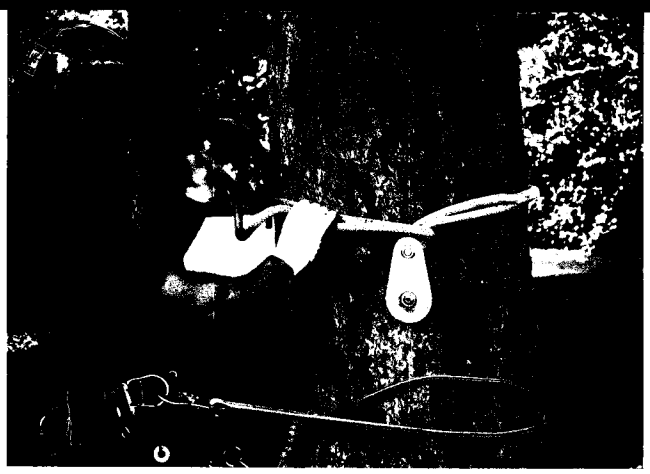
	City	Years
1	Anaconda	12
2	Billings	22
3	Bozeman	12
4	Broadus	7
5	Butte	11
6	Choteau	2
7	Colstrip	1
8	Drummond	4
9	Eureka	4
10	Forsyth	4
11	Fort Benton	9
12	Glendive	4
13	Great Falls	25

	City	Years
14	Hardin	13
15	Harlowton	19
16	Havre	16
17	Helena	20
18	Kalispell	19
19	Libby	13
20	Livingston	4
21	Malmstrom AFB	13
22	Manhattan	11
23	Missoula	18
24	Polson	16
25	Red Lodge	7
26	Ronan	5

	City	Years
27	Roundup	14
28	Shelby	6
29	Sheridan	6
30	Sidney	5
31	Townsend	6
32	Valier	4
33	Virginia City	4
34	White Sulphur Springs	3
35	Whitefish	11
36	Whitehall	13
37	Wolf Point	2

Designated Tree City USA communities must establish a tree board and a tree care ordinance, commit $2 per capita annually to a tree care program, and celebrate Arbor Day. A $500 grant is awarded to newly designated Tree City USA communities in Montana. Communities that have held the designation for one year or more also are eligible for a $250 Arbor Day grant, in addition to the $150 Arbor Day grant any community may apply for.

Persons with disabilities who need an alternative, accessible format of this document should contact the Montana Department of Natural Resources and Conservation Forestry Division, 2705 Spurgin Road, Missoula, MT 59804-3199. Phone (406) 542-4300 or fax (406) 542-4217. 1000 copies of this document were published at an estimated cost of $.87 per copy. The total cost of $870.00 includes $870.00 for printing and $0.00 for distribution.



Participant in a tree climbing and rigging workshop

Participants in a large-tree planting workshop

Providing Continuing Education For Tree Care Professionals

The Urban and Community Forestry Program seeks to provide educational opportunities for tree care professionals, with a goal that all practitioners are educated and knowledgeable in current urban and community forestry principles, practices, and standards. Professional arborists receive certification through the International Society of Arboriculture (ISA), and must participate in continuing education to maintain credentialing. Professional arborists in Montana have limited opportunities for training and continuing education within state, as many courses are offered out of state. The need to take time away from their businesses to travel long distances for continuing education is a hardship for many Montana arborists. The Urban and Community Forestry Program has helped bring additional training opportunities to Montana by securing an agreement with the Rocky Mountain Chapter of the ISA whereby the chapter will hold at least one workshop in Montana each year. The Urban and Community Forestry Program also sponsors training and speakers at the Annual Conference of the Association of Montana Turf and Ornamental Professionals, providing additional training opportunities and continuing education units for Montana arborists.

Educating the Public About the Importance of Community Forestry

Increasing public understanding of the importance and value of community forests and of the need for sound community forest management is an important goal of the Urban and Community Forestry Program. In addition to the education that occurs during the development of community forestry programs, Urban and Community Forestry Program staff provide educational outreach through presentations to schools and community groups, a newsletter, and an informative website with links to publications and other educational resources.

Arbor Day celebrations held in many Montana communities offer one important means of increasing public understanding of the benefits of community forestry. Grants offered by the Urban and Community Forestry Program help fund Arbor Day events.

Governor Schweitzer takes part in a tree-planting ceremony in Choteau.

Tree planting as part of Arbor Day events in Whitefish.

Community Involvement

- 65% of Montana's communities are participating in the Urban and Community Forestry Program.
- 86% of Montana's eligible population live in a Tree City USA designated community.
- 58% of Montana's communities located on tribal lands are participating in the Urban and Community Forestry Program.

Citizen Participation

- Local citizens contributed nearly 4,000 volunteer days to urban and community forestry in 2005.

Investment in Urban and Community Forestry

- Since 2001, DNRC Urban and Community Forestry has awarded grant funding to more than half of Montana's communities.
- Since 1991, Montana communities have invested nearly $20 million on urban and community forestry programs.
- Montana communities invest an average of $5 per capita on community forestry programs, more than twice the amount required for Tree City USA designation.

Great Falls: The Value of a Tree Inventory

Great Falls benefitted from having begun a tree inventory when a severe wind storm hit the city in August 2002, destroying or causing extensive damage to many trees. The city had begun a tree inventory in the fall of 2001, using Geographic Positioning System (GPS) information to map public street and park trees. Great Falls carries insurance on all public street and park trees as part of its overall insurance policy, and was able to use information from the tree inventory when it filed a claim with its insurance carrier. The insurance company agreed to reimburse the full value of the inventoried trees, at about $3,450 per tree. Compensation for trees which had not yet been inventoried was just $150 per tree. Because of the inventory information, the city received $165,000 for restoration of its urban forest, far more than the $10,200 it would have received without the inventory information. The economic benefits from just this one incident far exceeded the costs of conducting the inventory.

Forsyth Arbor Day 2004

Forsyth: Student-Initiated, Award-Winning Community Forestry

High school students in Forsyth have spearheaded efforts to establish a community forestry program, and have set in place a program that is a model for other communities. In 2002, students gave a presentation to the Mayor and City Council requesting that Forsyth participate in the Tree City USA program. The Mayor and City Council agreed to pursue Tree City USA designation, and the city received its designation in 2003. A high-school government class developed a tree care ordinance for the City Council, and a student government leader is a member of the tree board. Since 2002, students and teachers have planned a city-wide Arbor Day celebration, which includes a variety of events and tree planting. Students also raise money for tree planting, are using GPS to inventory city trees, and have developed a tree and vegetation brochure for community members. Forsyth received Tree City USA Growth Awards in 2004 and 2005 in recognition of the community's outstanding work.

Goals and Measurable Objectives

The following table shows the department base year and budgeted biennium goals and performance measures that are associated with the proposed 2009 biennium HB 2 budget.

Goal	Measurable Objectives
Prevent and suppress wildfires	Staff, train, and mobilize initial attack forces to control 95% of direct protection fires at 10 acres or less. This includes 50 T6 engines and 5 Huey helicopters. Complete the remaining 13 county-based Community Wildfire Protection Plans and continue to assist in implementation of all 49 plans.
Provide equipment to DNRC and County firefighters.	Build and deliver 54 new or redeveloped engines to DNRC or County firefighters. Develop 2 new fuel tenders to support DNRC helicopter operations. Purchase and install new P25-capable radios. This will include 30 base stations, 450 portable radios, and 10 aircraft radios.
Provide firefighter training to DNRC and County firefighters.	Conduct 150 wildland firefighter training sessions across the state for over 1000 students from county and DNRC crews
Provide financial assistance to local communities for fire training, equipment, and fuel mitigation projects.	Administer the federal Volunteer Fire Assistance (VFA) and Rural Fire Assistance (RFA) programs to distribute over $2 million to local government fire organizations. Administer the National Fire Plan Grants program to provide $2 million to local communities to mitigate critical wildland fuels problem areas
Provide staffing and support for interagency Incident Management Teams.	Provide 17 qualified and 14 trainee personnel annually for the Northern Rockies Incident Management Teams. Develop and sustain 5 interagency type 3 Incident Management Teams.

Goal	Measurable Objectives
Provide forest stewardship assistance to private forest landowners.	Provide information, education, products, and funding for sustainable resource management to landowners and organizations. • Team teach 7 BMP/SMZ workshops • Facilitate 5 Forest Stewardship Planning workshops • Facilitate 1 Forest Roads Maintenance workshop • Facilitate Stewardship Mini College • Provide hardcopy publications (7) for landowners and stakeholder groups. • Assist with development of 75 new forest stewardship management plans on private forest lands. • Provide forestry BMP information to loggers and landowners on all new logging operations on private lands.
Assist Montana communities with management of their urban and neighborhood forests and landscapes.	• Promote continued Tree City USA designation in 37 Montana communities. Target 5 new communities for Tree City USA designation. • Facilitate Arbor Day Ceremonies in all 60 communities • Facilitate urban forestry workshops in 10 communities. • Facilitate completion of new tree inventories in 3 communities. • Provide 20 hours of continuing education to tree care professionals and provide 4 Certified Arborist exams statewide.

Goal	Measurable Objectives
Administer forest practice laws on private lands to minimize wildfire hazard and protect soil and water resources following logging operations.	Manage Hazard Reduction Agreements (HRAs) with private landowners. • Administer approximately 3500 ongoing Hazard Reduction Agreements (HRA) • Administer and enforce forest practices laws on approximately 1500 new logging operations. • Conduct site visits on at least 30% of active logging operations. • Ensure compliance with Streamside Management Zone Law on approximately 15 violations.
Increase utilization of forest and agricultural biomass for energy production.	Construct 5 new biomass heating projects in schools and public buildings around the state. Develop 2 new external funding sources for funding biomass heat conversions in Montana schools and public buildings. Improve the efficiency of processing and transporting biomass fuel.
Monitor and report insect and disease conditions and trends on Montana forests. Provide technical assistance to state and private forest landowners.	Respond to State Agency and private landowner insect and disease inquiries. Complete Montana Forest Conditions Report by March 1. Develop one insect and/or disease brochure specific to private landowners in Montana. Conduct training workshops with the following partners: Montana Logging Association, UM/MSU Forestry Mini College, USFS/DNRC Identification of Forest Insects and Diseases, USFS/DNRC Management of Forest Insects and Diseases, Forest Stewardship Workshop, Forest Insect and Disease Field Days. Develop interagency response plan to prepare for possible introduction of emerald ash borer in Montana.

Goal	Measurable Objectives
Manage the State Forest Tree Nursery to provide seedlings for windbreaks, shelterbelts, reforestation, and restoration projects at a reasonable cost.	Produce and sell approximately 900,000 seedlings for conservation plantings. Produce 100,000 seedlings for reforestation of state-owned forest lands. Manage revenues/expenses to ensure continued financial viability of nursery operation.
Represent the state's interests in management of private, state, and federal forestlands. Promote the sustainability of Montana's forests and the goods and services derived from them.	Provide analysis, communication and technical assistance on forestry-related policies, regulations, and legislation at national, regional, and state levels. Provide comments to federal land managers on forest plan revisions and forest management projects.

2006 Program Overview:

Biomass Utilization: Currently Montana has 4 operating biomass heating systems, at public schools in Darby, Victor, Philipsburg, and Thompson Falls. Five additional projects were funded with the 2005 Federal grant, and have been in the construction phase during 2006. UM-Western Campus in Dillon, Kalispell's new Glacier High School, and Troy and Townsend public schools will begin heating with wood in the winter of 2006-07. Montana received another $1.025 million federal grant for use in FY 2006 and provided cost share grants to three more facilities: Eureka, Deer Lodge and Browning schools. In FY2006, DNRC issued 3 new grants totaling $693,750. The total amount of grants under FFS program administration during SFY 06 was $2,067,027.

Urban and Community Forestry (UCF) Program: Montana has 38 participating Tree City USA communities which includes 418,664 citizens. These communities spent $2.2 million on their local programs in 2006. The UCF Program awarded 73 grants to communities for a total of $40,000 which leveraged an additional $87,000. Additionally, 81% of Montana communities are either managing or developing local programs. Communities in these categories have completed one or all of the following activities: (1) written a management plan, (2) utilized professional staff, (3) adopted tree ordinances and/or (4) formed an advocacy/advisory group; most with the assistance of the Montana UCF program staff.

Forest Pest Management: A total of $133,000 has been granted to Lake County for forest restoration projects and to date 257 acres of private forests have been thinnned in effort to reduce the impacts of bark beetles. Aerial surveillance for insects and diseases was conducted on 29 million acres in fiscal year 2006. Five workshops were offered and attended by 266 private landowners and professional foresters.

Landowner Assistance: In 2006, 33 landowners received Forest Land Enhancement Program (FLEP) financial assistance totaling $117,000 for cost share projects. FLEP also funded $8,644 towards educational efforts in publication development, and workshops for landowners and professionals.

Fire & Aviation Program: In 2006, DNRC continued to coordinate development and implementation of the Community Wildfire Protection Plans at the county level, with 35 completed and 14 additional plans in progress. Partially as a result of these efforts, applicants within Montana were recently awarded $1,194,000 from the Western States Interface Grant program for additional fuel mitigation projects. The Equipment & Development Center developed and delivered 26 new engines in 2006. National Fire Plan funding continued to help DNRC increase firefighting capability, with support for an additional helicopter and fuel truck development, fielding a 20 person prison handcrew, providing staffing for comprehensive fire planning and administration of the Volunteer Fire Assistance and the Rural Fire Assistance programs. The 2006 fire season approached Montana records for number of fires (594), acres burned (more than 473,000 acres) and suppression expenditures ($35 million). Despite this level of activity, DNRC again attained its goal of keeping 95% of all direct protection fires to 10 acres or less.

DNRC Forestry Division
Fiscal Year 2006 Accomplishments

In FY2006, the Forestry Division of the Montana Department of Natural Resources and Conservation (DNRC) worked to ensure the sustainability of Montana forests, rural lands, and communities through cooperative wildland fire protection, sound forest management practices, and by promoting a viable forest-based economy. This was an important component of DNRC's overall mission to ensure Montana's land and water resources provide benefits for present and future generations.

Fire & Aviation Management:

Acres of DNRC wildland fire protection on federal land	1,634,104
Acres of DNRC wildland fire protection on state lands	857,464
Acres of DNRC wildland fire protection on private land	2,624,247
Number of wildland fires (county assist) suppressed in cooperation with DNRC during the 2006 fire season	72
Number of wildland fires (direct protection) suppressed by DNRC during the 2006 fire season	522
DNRC wildland fire resources (e.g., helicopters, patrol planes, severity) provided for county assistance during the 2006 fire season	11
Equipment development assistance (e.g., new or redeveloped wildland fire engines) provided to county fire programs	22
Volunteer and rural fire department assistance grant funding provided	$1,102,089

Forestry Assistance:

Acres of non-industrial private land ownership	3,800,000
Communities participating in the Montana Tree City USA program	38
Arbor Day grant funding provided	$13,400
DNRC-sponsored Arbor Day celebrations	10
Forest pest management grant funding provided to thin forests and enhance resilience to bark beetles within counties	$133,000
Forestry assistance (in hours) provided to private landowners	12,890
Fuels for Schools grant funding provided	$2,067,027
Fuels for Schools projects (existing or planned)	12
Tree and shrub seedlings provided to tribal agencies	338,557
Tree and shrub seedlings provided to landowners	428,024
Tree and shrub seedlings provided to Trust Land Management Division	95,899
Urban and community forest grant funding provided	$23,650

DNRC Forestry Division
Fiscal Year 2006 Accomplishments

In FY2006, the Forestry Division of the Montana Department of Natural Resources and Conservation (DNRC) worked to ensure the sustainability of Montana forests, rural lands, and communities through cooperative wildland fire protection, sound forest management practices, and by promoting a viable forest-based economy. This was an important component of DNRC's overall mission to ensure Montana's land and water resources provide benefits for present and future generations.

Fire & Aviation Management:

Acres of DNRC wildland fire protection on federal land	1,634,104
Acres of DNRC wildland fire protection on state lands	857,464
Acres of DNRC wildland fire protection on private land	2,624,247
Number of wildland fires (county assist) suppressed in cooperation with DNRC during the 2006 fire season	72
Number of wildland fires (direct protection) suppressed by DNRC during the 2006 fire season	522
DNRC wildland fire resources (e.g., helicopters, patrol planes, severity) provided for county assistance during the 2006 fire season	11
Equipment development assistance (e.g., new or redeveloped wildland fire engines) provided to county fire programs	22
Volunteer and rural fire department assistance grant funding provided	$1,102,089

Forestry Assistance:

Acres of non-industrial private land ownership	3,800,000
Communities participating in the Montana Tree City USA program	38
Arbor Day grant funding provided	$13,400
DNRC-sponsored Arbor Day celebrations	10
Forest pest management grant funding provided to thin forests and enhance resilience to bark beetles within counties	$133,000
Forestry assistance (in hours) provided to private landowners	12,890
Fuels for Schools grant funding provided	$2,067,027
Fuels for Schools projects (existing or planned)	12
Tree and shrub seedlings provided to tribal agencies	338,557
Tree and shrub seedlings provided to landowners	428,024
Tree and shrub seedlings provided to Trust Land Management Division	95,899
Urban and community forest grant funding provided	$23,650

2006 Program Overview:

Biomass Utilization: Currently Montana has 4 operating biomass heating systems, at public schools in Darby, Victor, Philipsburg, and Thompson Falls. Five additional projects were funded with the 2005 Federal grant, and have been in the construction phase during 2006. UM-Western Campus in Dillon, Kalispell's new Glacier High School, and Troy and Townsend public schools will begin heating with wood in the winter of 2006-07. Montana received another $1.025 million federal grant for use in FY 2006 and provided cost share grants to three more facilities: Eureka, Deer Lodge and Browning schools. In FY2006, DNRC issued 3 new grants totaling $693,750. The total amount of grants under FFS program administration during SFY 06 was $2,067,027.

Urban and Community Forestry (UCF) Program: Montana has 38 participating Tree City USA communities which includes 418,664 citizens. These communities spent $2.2 million on their local programs in 2006. The UCF Program awarded 73 grants to communities for a total of $40,000 which leveraged an additional $87,000. Additionally, 81% of Montana communities are either managing or developing local programs. Communities in these categories have completed one or all of the following activities: (1) written a management plan, (2) utilized professional staff, (3) adopted tree ordinances and/or (4) formed an advocacy/advisory group; most with the assistance of the Montana UCF program staff.

Forest Pest Management: A total of $133,000 has been granted to Lake County for forest restoration projects and to date 257 acres of private forests have been thinnned in effort to reduce the impacts of bark beetles. Aerial surveillance for insects and diseases was conducted on 29 million acres in fiscal year 2006. Five workshops were offered and attended by 266 private landowners and professional foresters.

Landowner Assistance: In 2006, 33 landowners received Forest Land Enhancement Program (FLEP) financial assistance totaling $117,000 for cost share projects. FLEP also funded $8,644 towards educational efforts in publication development, and workshops for landowners and professionals.

Fire & Aviation Program: In 2006, DNRC continued to coordinate development and implementation of the Community Wildfire Protection Plans at the county level, with 35 completed and 14 additional plans in progress. Partially as a result of these efforts, applicants within Montana were recently awarded $1,194,000 from the Western States Interface Grant program for additional fuel mitigation projects. The Equipment & Development Center developed and delivered 26 new engines in 2006. National Fire Plan funding continued to help DNRC increase firefighting capability, with support for an additional helicopter and fuel truck development, fielding a 20 person prison handcrew, providing staffing for comprehensive fire planning and administration of the Volunteer Fire Assistance and the Rural Fire Assistance programs. The 2006 fire season approached Montana records for number of fires (594), acres burned (more than 473,000 acres) and suppression expenditures ($35 million). Despite this level of activity, DNRC again attained its goal of keeping 95% of all direct protection fires to 10 acres or less.